

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of operating a path computation element, said method comprising:

determining that a fragmented bandwidth condition exists in a network; and
in response to said fragmented bandwidth condition, causing rerouting of MPLS Traffic Engineering paths to increase likelihood of successful placements;

wherein determining that a fragmented bandwidth condition exists in a network comprises monitoring a failure rate in establishing paths and comparing results of said monitoring to a failure rate criterion.

Claim 2 (currently amended): The method of claim 3 + wherein causing rerouting comprises:

distributing a reoptimization request to a plurality of nodes within said network.

Claim 3 (currently amended): A method of operating a path computation element, said method comprising:

determining that a fragmented bandwidth condition exists in a network; and
in response to said fragmented bandwidth condition, causing rerouting of MPLS
Traffic Engineering paths to increase likelihood of successful placements;

The method of claim 2 wherein causing rerouting further comprises:

wherein rerouting comprises receiving requests for reoptimization of paths until a timer expires; thereafter recomputing said paths in response to said requests.

Claim 4 (original): The method of claim 3 wherein recomputing comprises: recomputing employing a virtual shortest path tree technique.

Claim 5 (original): The method of claim 3 wherein recomputing comprises: recomputing said paths in order of decreasing bandwidth requirements.

Claim 6 (canceled).

Claim 7 (original): A method of operating a path computation element to increase the likelihood of successful path placements, said method comprising: distributing a reoptimization request to a plurality of nodes within said network; receiving requests for reoptimization of paths until a timer expires; and thereafter recomputing said paths in response to said requests.

Claim 8 (original): The method of claim 7 wherein recomputing comprises: recomputing employing a virtual shortest path tree technique.

Claim 9 (original): The method of claim 7 wherein recomputing comprises:
recomputing said paths in order of decreasing bandwidth requirements.

Claim 10 (currently amended): A computer program product for operating a path computation element, said computer program product comprising:
code that causes a determination that a fragmented bandwidth condition exists in a network;

code that, in response to said fragmented bandwidth condition, causes rerouting of MPLS Traffic Engineering paths to increase likelihood of successful placements; and
a computer-readable medium that holds the codes;

wherein said code that causes determination of a fragmented bandwidth condition comprises code that causes monitoring of a failure rate in establishing paths and code that causes comparison of results of said monitoring to a failure rate criterion.

Claim 11 (currently amended): The computer program product of claim 12 + 10 wherein said code that causes rerouting comprises:

code that causes distribution of a reoptimization request to a plurality of nodes within said network.

Claim 12 (currently amended): A computer program product for operating a path computation element, said computer program product comprising:
code that causes a determination that a fragmented bandwidth condition exists in a network;
code that, in response to said fragmented bandwidth condition, causes rerouting of MPLS Traffic Engineering paths to increase likelihood of successful placements; and

a computer-readable medium that holds the codes;

~~The computer program product of claim 11 wherein said code that causes rerouting further comprises:~~

code that causes receipt of requests for reoptimization of paths until a timer expires; and

code that causes recomputation of said paths in response to said requests.

Claim 13 (original): The computer program product of claim 12 wherein said code that causes recomputation of said paths comprises:

code that causes recomputation of said paths by employing a virtual shortest path tree technique.

Claim 14 (original): The computer program product of claim 13 wherein said code that causes recomputation comprises:

code that causes recomputation of said paths in order of decreasing bandwidth requirements.

Claim 15 (canceled).

Claim 16 (original): A computer program product for operating a path computation element to increase the likelihood of successful path placements, said computer program product comprising:

code that causes distribution of a reoptimization request to a plurality of nodes within said network;

code that causes reception of requests for reoptimization of paths until a timer expires;

code that causes recomputation of said paths in response to said requests; and
a computer-readable medium that holds the codes.

Claim 17 (original): The computer program product of claim 16 wherein said code that causes recomputation of paths comprises:

code that causes recomputation employing a virtual shortest path tree technique.

Claim 18 (original): The computer program product of claim 16 wherein said code that causes recomputation comprises:

code that causes recomputation of said paths in order of decreasing bandwidth requirements.

Claim 19 (currently amended): Apparatus for operating a path computation element, said apparatus comprising:

a processor;
a memory device that stores instructions for execution by said processor, said instructions comprising:

code that causes a determination that a fragmented bandwidth condition exists in a network; and

code that, in response to said fragmented bandwidth condition, causes rerouting of MPLS Traffic Engineering paths to increase likelihood of successful placements;

wherein said code that causes rerouting comprises:

code that causes receipt of requests for reoptimization of paths until a timer expires; and

code that causes recomputation of said paths in response to said requests.

Claim 20 (original): Apparatus for operating a path computation element to increase the likelihood of successful path placements, said apparatus comprising:

a processor;

a memory device that stores instructions for execution by said processor, said instructions comprising:

code that causes distribution of a reoptimization request to a plurality of nodes within said network;

code that causes reception of requests for reoptimization of paths until a timer expires; and

code that causes recomputation of said paths in response to said requests.

Claim 21 (currently amended): Apparatus for operating a path computation element, said method comprising:

means for determining that a fragmented bandwidth condition exists in a network; and

means for, in response to said fragmented bandwidth condition, causing rerouting of MPLS Traffic Engineering paths to increase likelihood of successful placements;

wherein said means for causing rerouting comprises receiving requests for reoptimization of paths until a timer expires; thereafter

recomputing said paths in response to said requests.

Claim 22 (original): Apparatus for operating a path computation element to increase the likelihood of successful path placements, said apparatus comprising:

means for distributing a reoptimization request to a plurality of nodes within said network;

means for receiving requests for reoptimization of paths until a timer expires; and thereafter

means for recomputing said paths in response to said requests.

Claim 23 (new): The apparatus of claim 22 wherein recomputing comprises: recomputing employing a virtual shortest path tree technique.

Claim 24 (new): The apparatus of claim 22 wherein recomputing comprises: recomputing said paths in order of decreasing bandwidth requirements.

Claim 25 (new): The apparatus of claim 20 wherein code that causes recomputation of said paths comprises code that causes recomputation employing a virtual shortest path tree technique.

Claim 26 (new): The apparatus of claim 20 wherein code that causes recomputation of said paths comprises code that causes recomputation of said paths in order of decreasing bandwidth requirements.